

I. AMENDMENT**A. In the Claims**

Amend the claims as follows:

1. (original) A method for slowing and controlling a beam of charged particles, the method including the steps of:

superimposing at least one magnetic field on a mass; and

passing a beam of the charged particles through the mass and at least one magnetic field such that the fields control the beam and the mass slows but does not stop the particles.
2. (original) The method of claim 1, wherein the step of superimposing includes superimposing a bending magnetic field within the mass.
3. (original) The method of claim 1, wherein the step of superimposing includes superimposing a focusing magnetic field within the mass.
4. (original) The method of claim 1, wherein the step of superimposing includes superimposing a bending magnetic field on a focusing magnetic field within the mass.
5. (original) The method of claim 4, wherein the step of passing is carried out with the mass including a gas.
6. (original) The method of claim 4, wherein the step of passing is carried out with the mass including a liquid.

7. (original) The method of claim 4, wherein the step of passing is carried out with the mass including a solid.

8. (original) The method of claim 4, wherein the step of superimposing is carried out with one of the magnetic fields at a non-zero angle to the beam.

9. (original) The method of claim 4, wherein the step of superimposing is carried out with the focusing magnetic field being a circular magnetic field inside the mass.

10. (original) The method of claim 4, wherein the step of superimposing is carried out with the focusing magnetic field being a non-circular magnetic field inside the mass.

11. (original) The method of claim 4, wherein the step of superimposing is carried out with the bending magnetic field being uniform inside the mass.

12. (original) The method of claim 4, wherein the step of superimposing is carried out with the bending magnetic field being non-uniform inside the mass.

13. (original) The method of claim 4, further including the step of flowing an electrical current along a length of the mass to produce the focusing magnetic field.

14. (original) The method of claim 4, further including the step of flowing electrical current in at least one coil adjacent to the mass, the coil located around a material

sufficiently magnetic to interact with the current in the coil to influence the bending magnetic field.

15. (original) The method of claim 4, wherein the step of passing the beam of the charged particles through the mass is carried out with the mass comprised of a material conducting an electric current and includes magnetically influencing the beam with the electric current.

16. (original) The method of claim 4, further including the steps of:
directing the beam into a transfer line; and
aiming the beam at a patient to terminate cells.

17. (original) The method of claim 4, further including the steps of:
directing the beam into a transfer line;
injecting the beam into a synchrotron; and
further decelerating the beam.

18. (original) The method of claim 4, further including the steps of:
directing the beam into a transfer line;
injecting the beam into a cyclotron; and
further decelerating the beam.

19. (original) The method of claim 4, further including the steps of:
directing the beam into a transfer line;
injecting the beam into a linear accelerator; and

further decelerating the beam.

20. (original) The method of claim 4, further including the steps of:
 directing the beam into a transfer line;
 injecting the beam into a synchrotron;
 reducing the beam emittance longitudinally and/or transversely with stochastic
 and/or electron cooling; and
 further decelerating the beam.

21. (original) The method of claim 4, further including the steps of:
 directing the beam into a transfer line;
 injecting the beam into a synchrotron;
 reducing the beam emittance in at least one direction from the group consisting
 of longitudinally, transversely, and both, with cooling from the group consisting of stochastic,
 electron, and both; and
 further decelerating the beam.

22. (original) The method of claim 4, further including the steps of:
 capturing the particles in a container at a first location;
 transporting the container to a second location; and
 releasing the particles at the second location.

23. (original) An apparatus for slowing and controlling a beam of charged
 particles, the apparatus including: